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EXAMINER

STRANGE, AARON N

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 06/21/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Office Action Summary

Application No.

09/669,852

Applicant(s)

HORTON, JOHN J

Examiner

Aaron Strange

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Applicant is advised that claims 27 and 28 are separated from claim 25 by claim 26, which does not also depend from claim 25. Also, claim 37 is separated from claim 35 by claim 36, which does not also depend from claim 35.

A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Response to Amendment

2. The amendment to claim 2 is sufficient to overcome the objection cited in the first Office action. That objection is hereby withdrawn.

Response to Arguments

3. Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection, as set forth below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 and 13-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branson et al. (US 6,314,512) in view of Hibbard (US 2001/0056503) in further view of Tsoft.

6. With regard to claim 1, Branson et al. (Branson, hereafter) discloses a method of monitoring the availability of Internet access, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting the connection failure, that the connection is via xDSL, or that the user computer is connected via a router to the network to which the request is sent.

Hibbard discloses a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses sending a request (ping) from a computer via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21). Hibbard further discloses that the request is sent to a network which is separated by the requesting interface by at least one router (Further away than closest device) (Hibbard, Page 2, Paragraph 22). Branson discloses that a particular advantage of notifying the user of a failed connection is to give the user ability to take corrective action (Branson, Col 1, Lines 43-47). Initiating a backup connection as

disclosed by Hibbard would be the ideal form of corrective action since it allows the connection to be re-established and the user to continue working.

Tsoft disclose using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to take corrective action such as initiating a backup dial-up connection.

7. With regard to claim 2, Hibbard further discloses changing the default modem setting from an xDSL modem to a dial-up modem (Page 2, Paragraph 19).

8. With regard to claim 3, Hibbard further discloses connecting to the Internet via the dial-up modem (Page 3, Paragraph 27).

9. With regard to claim 4, Hibbard further discloses repeatedly sending the request (Page 2, Paragraph 21).

10. With regard to claim 5, Hibbard further discloses that a successive request is sent after a delay of a predetermined amount of time (Page 2, Paragraph 23).

11. With regard to claim 6, while the system disclosed by Hibbard shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the predetermined amount of time is in the range of 1 to 10 minutes.

While the reference remains silent on the specific interval between pings, it is clear that the interval is variable to allow the user to control the frequency of the connection testing. A smaller delay allows any failures to be detected sooner, but creates more traffic on the network, increasing congestion. Setting the delay between 1 and 10 minutes would allow the user to be notified of a failed connection no longer than 10 minutes after the failure occurs, without generating a significant amount of traffic on the network.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use a delay between 1 and 10 minutes in order to minimize the amount of network traffic caused by the connection failure detection, while still notifying the user of a failed connection in a reasonable amount of time.

12. With regard to claim 7, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose displaying a message on the user computer indicating that xDSL service has been restored when a response to the request is received after a response to a previous request was not received.

Hibbard discloses that the primary connection is determined to be restored when

a response is received to the request after a response to a previous request was not received (Page 3, Par 31). Since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to display a message indicating that xDSL service has been restored when a response to the request is received after a response to a previous request was not received. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

13. With regard to claim 8, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

14. With regard to claim 9, Hibbard further discloses that the request is directed to a server operated by an xDSL service provider, the server being connected to the network (gateway at ISP) (Page 2, Paragraph 22).

15. With regard to claim 10, Branson further discloses that the steps are carried out by an applet running on the user computer (Connection manager notifies GUI when failure occurs) (Col 4, Lines 19-23 and Col 5, Lines 52-65).

16. With regard to claim 11, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention

(discussed above), it fails to specifically disclose that the applet is at least one of saved in firmware and saved on the hard drive of the user computer.

However, this would be an advantageous and obvious addition to the system. By storing the applet in firmware or on the hard drive of the user computer, the applet would not be lost every time the computer reboots. Having to reinstall the applet every time the computer is rebooted would be very inconvenient for the user.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the applet in firmware or the hard drive of the user computer so that the program would not need to be reinstalled every time the computer is rebooted. This would be very inconvenient and would not ensure that backup connectivity is always available.

17. With regard to claim 13, while Branson fails to specifically disclose that the applet is operative as an active program in a multi tasking operating system, this limitation is inherent. Since the applet is running on a personal computer (Col 3, Lines 49-52) which supports threading (Col 4, Lines 43-45), it is running in a multi tasking operating system.

18. With regard to claim 14, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose the monitoring dial-up modem connectivity to the Internet and determining therefrom whether xDSL service has failed.

However, since the dial-up connection is the backup connection, it will only be utilized when the primary connection has failed. It is a safe assumption that xDSL has failed for all users utilizing the backup connection. This allows the Internet Service

Provider to determine which xDSL connections have failed without requiring the user to contact the ISP directly.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made for the ISP to monitor the dial-up modem connectivity and determine whether xDSL service has failed. This allows the ISP to determine which connections have failed without requiring the user to contact the ISP. This can speed up the process of identifying and repairing problems with the network.

19. With regard to claim 15, Branson et al. (Branson, hereafter) discloses a method of monitoring the availability of Internet access, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting the connection failure, and that the connection is via xDSL, or that the user is offered the option of employing dial-up modem service.

Hibbard discloses a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses periodically sending a request (ping) from a computer via a primary interface to which a response is expected; determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21); if the response has been received, sending a subsequent request after a predetermined delay (Hibbard, Page 2, Paragraph 21); After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21), and the backup dial-up service is initiated (Hibbard, Page 2, Paragraph 25). Branson discloses

that a particular advantage of notifying the user of a failed connection is to give the user ability to take corrective action (Branson, Col 1, Lines 43-47). Initiating a backup connection via dial-up modem service as disclosed by Branson in view of Hibbard in further view of Tsoft would be the ideal form of corrective action since it allows the connection to be re-established and the user to continue working.

Tsoft disclose using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to take corrective action such as initiating a backup dial-up connection.

20. With regard to claim 16, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

21. With regard to claim 17, Hibbard further discloses that the ping command is directed to a server belonging to the xDSL provider (Page 2, Paragraph 22).

22. With regard to claim 18, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the predetermined amount of time is in the range of 1 to 10 minutes.

While the reference remains silent on the specific interval between pings, it is clear that the interval is variable to allow the user to control the frequency of the connection testing. A smaller delay allows any failures to be detected sooner, but creates more traffic on the network, increasing congestion. Setting the delay between 1 and 10 minutes would allow the user to be notified of a failed connection no longer than 10 minutes after the failure occurs, without generating a significant amount of traffic on the network.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use a delay between 1 and 10 minutes in order to minimize the amount of network traffic caused by the connection failure detection, while still notifying the user of a failed connection in a reasonable amount of time.

23. With regard to claim 19, Branson et al. further disclose displaying a dialogue box on the end user's computer (GUI Window) (Branson et al. Col 5, Lines 52-65).

24. With regard to claim 20, Hibbard fails to disclose that the dialog box includes buttons.

Including buttons in a dialog box is well known in the art, and are a common method of soliciting user input. Giving the user the option of connecting via a backup connection requires a method of allowing the user to choose which option is desired.

Buttons are often used to display choices in dialog boxes and the action to take is determined based upon which button is clicked.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to use buttons in the dialog box as a means for determining whether the user wishes to connect via the backup connection in the event of a failure of the primary connection.

25. With regard to claim 21, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose displaying a message on the user computer indicating that xDSL service has been restored when a response to the request is received after a response to a previous request was not received.

Hibbard discloses that the primary connection is determined to be restored when a response is received to the request after a response to a previous request was not received (Page 3, Par 31). Since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to display a message indicating that xDSL service has been restored when a response to the request is received after a response to a

previous request was not received. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

26. With regard to claim 22, Branson further discloses that steps (a)-(d) of claim 15 are implemented in software that is operable on the end user's computer (Tier 1, including connection manager, is located at user PC) (Col 3, Lines 49-52 and Fig 1).

27. With regard to claim 23, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose detecting if the end user uses dial-up service and associating such an event with a failure of xDSL service.

However, since the dial-up connection is the backup connection, it will only be utilized when the primary connection has failed. It is a safe assumption that xDSL has failed for all users utilizing the backup connection. This allows the Internet Service Provider to determine which xDSL connections have failed without requiring the user to contact the ISP directly.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made for the ISP to monitor the dial-up modem connectivity and determine whether xDSL service has failed. This allows the ISP to determine which connections have failed without requiring the user to contact the ISP. This can speed up the process of identifying and repairing problems with the network.

28. With regard to claim 24, Branson et al. (Branson, hereafter) discloses a method of monitoring the availability of Internet access, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that

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the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting the connection failure, and that the connection is via xDSL, initiating a backup connection, or monitoring the connection via dial-up modem and determining user account information including whether the user is an xDSL service subscriber or customer; and if the user is an xDSL service subscriber or customer, concluding that xDSL service has failed.

Hibbard discloses a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses sending a request (ping) from a computer via a primary interface to which a response is expected; determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21); if a response has not been received, establishing a connection to a server via a dial-up modem (Hibbard, Page 3, Paragraph 27). Branson discloses that a particular advantage of notifying the user of a failed connection is to give the user ability to take corrective action (Branson, Col 1, Lines 43-47). Initiating a backup connection via dial-up modem service as disclosed by Hibbard would be the ideal form of corrective action since it allows the connection to be re-established and the user to continue working.

Tsoft disclose using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This

would allow home users to be notified of a failure of their xDSL service and take appropriate action.

Monitoring the dial-up connection and determining whether a user is an xDSL subscriber, and concluding xDSL service has failed if a subscriber connects using dial-up service would have been an obvious addition to the system. Since the dial-up connection is the backup connection, it will only be utilized when the primary connection has failed. It is a safe assumption that xDSL has failed for all users utilizing the backup connection. This allows the Internet Service Provider to determine which xDSL connections have failed without requiring the user or user's computer to contact the ISP directly.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to take corrective action such as initiating a backup dial-up connection.

29. With regard to claim 25, Hibbard further discloses generating a trouble ticket indicating xDSL service failure (alarm to system administrator) (Page 3, Paragraph 27).

30. With regard to claim 26, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose generating and sending an email to the user

informing the user that an xDSL service failure has been detected and is being corrected.

Often, when a service failure occurs, the user will telephone the ISP to notify them of the problem, and they will be told that the problem has been recognized and is being fixed. This time spent on the phone wastes the time of both the ISP and the user. Since the ISP already knows that service has failed when a backup connection has been initiated, it would be advantageous to contact the user via email to inform them that the problem is being corrected. This would notify the user and eliminate the need for a time-consuming telephone call in most cases.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to notify the user via email when a xDSL service failure is detected and inform them that a correcting is underway. This will save time for the ISP and the end user by preventing a large percentage of phone calls inquiring about failed service and could easily be automated as part of the failure detection system.

31. With regard to claims 27 and 28, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose storing a plurality of trouble tickets or subjecting the trouble tickets to a data mining process.

Storage of trouble tickets and subjecting the tickets to data mining allows the system administrator to monitor the connections of several different users as well as create a log of all connection failures. Data mining the tickets can provide statistics regarding to the reliability of individual connections and the network as a

whole. This information is valuable to administrators since it can help identify links that fail frequently and help locate faulty network devices. This information can be used to improve the overall reliability of the network and reduce the amount of time that the backup connection is utilized.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to store trouble tickets from a plurality of users and subject them to data mining in order to generate statistics about the reliability of the network and help the system administrator identify problem areas of the network.

32. With regard to claim 29, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

33. With regard to claim 30, Branson further discloses that software running on the user computer executes at least steps (a)-(c) (Tier 1, including connection manager, is located at user PC) (Col 3, Lines 49-52 and Fig 1).

34. With regard to claim 31, Hibbard further discloses that a plurality of requests are sent, each being sent after a predetermined delay (Page 2, Paragraph 23).

35. With regard to claim 32, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose notifying the user when xDSL serviced has been restored.

However, since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the

user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to notify the user when xDSL service has been restored. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

36. With regard to claim 33, Branson et al. (Branson, hereafter) discloses a method of monitoring the availability of Internet access, comprising the steps of: detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting and correcting the connection failure, that the connection is via xDSL, or that the user computer is connected via a router to the network to which the request is sent.

Hibbard discloses a method of detecting failure of a network connection and switching to a backup connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses sending a request (ping) from a computer through a router via a primary interface to which a response is expected and determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21). The backup connection via dial-up modem is initiated (Hibbard, Page 3, Paragraph 27) and the default mode of communication between the computer and the server is changed to dial-up modem (Page 2, Paragraph 19 and Fig

1, 150). Hibbard further discloses that the request is sent to a network which is separated by the requesting interface by at least one router (Further away than closest device) (Hibbard, Page 2, Paragraph 22). Branson discloses that a particular advantage of notifying the user of a failed connection is to give the user ability to take corrective action (Branson, Col 1, Lines 43-47). Initiating a backup connection as disclosed by Hibbard would be the ideal form of corrective action since it allows the connection to be re-established and the user to continue working.

Tsoft disclose using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This would allow home users to be notified of a failure of their xDSL service and take appropriate action.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to take corrective action such as initiating a backup dial-up connection.

37. With regard to claim 34, Hibbard further discloses automatically establishing communication via dial-up modem (Page 1, Paragraph 9).

38. With regard to claim 35, Hibbard further discloses changing the default mode of communication back to xDSL service after a dial-up session is complete (primary connection is restored) (Page 2, Paragraph 19).

39. With regard to claim 36, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

40. With regard to claim 37, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above), it fails to disclose displaying a message on the user computer indicating that xDSL service has been restored.

However, since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to display a message indicating that xDSL service has been restored. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

41. With regard to claim 38, Hibbard further discloses that a plurality of requests are sent, each request being sent after a predetermined delay (Page 2, Paragraph 23).

42. With regard to claim 39, Branson et al. (Branson, hereafter) discloses a monitoring system for monitoring the availability of Internet access, comprising:

detecting a failure of the connection and displaying a message on the user computer indicating that the connection is out of service (Branson, Col 2, Lines 49-64). Branson fails to disclose the method for detecting or correcting the connection failure, and that the connection is via xDSL or dial-up modem.

Hibbard discloses a method of detecting failure of a network connection and switching to a backup dial-up connection in the event of connection failure (Hibbard, Page 2, Par 23). Hibbard discloses periodically sending a request (ping) from a computer via a primary interface to which a response is expected; determining if a response (acknowledgement) has been received (Hibbard, Page 2, Paragraph 21); if the response has been received, sending a subsequent request after a predetermined delay (Hibbard, Page 2, Paragraph 21). After a response has failed to occur, the primary connection is assumed to have failed (Hibbard, Page 2, Paragraph 21), and the backup dial-up service is initiated (Hibbard, Page 2, Paragraph 25). Branson discloses that a particular advantage of notifying the user of a failed connection is to give the user ability to take corrective action (Branson, Col 1, Lines 43-47). Initiating a backup connection via dial-up modem service as disclosed by Hibbard would be the ideal form of corrective action since it allows the connection to be re-established and the user to continue working.

Tsoft disclose using xDSL as a primary connection means for an end user and having dial-up modem access as a backup connection (Tsoft, Page 6, Line 23). Since xDSL is a popular connection means for home users, it would be advantageous to use it as the connection means in the system disclosed by Branson in view of Hibbard. This

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would allow home users to be notified of a failure of their xDSL service and take appropriate action.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the system disclosed by Branson to use the method of determining and correcting a connection failure disclosed by Hibbard with the xDSL service and backup connection disclosed by Tsoft to obtain the invention as specified in claim 1. This would allow the user computer to detect failure of xDSL connections and notify the user of failures, giving the user the opportunity to take corrective action such as initiating a backup dial-up connection.

43. With regard to claim 40, Hibbard further discloses that a default configuration of the user computer is to employ the xDSL modem (primary connection) (Page 2, Paragraph 19).

44. With regard to claim 41, Hibbard further discloses that the default configuration of the user computer is changed to employ the dial-up modem (backup connection) (Page 2, Paragraph 19).

45. With regard to claim 42, Hibbard further discloses that the request is a ping command (Page 2, Paragraph 21).

46. With regard to claim 43, Hibbard further discloses that the ping command is directed to a server belonging to an xDSL service provider (Page 2, Paragraph 22).

47. With regard to claim 44, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention

(discussed above), it fails to specifically disclose that the applet is at least one of saved in firmware and saved on the hard drive of the user computer.

However, this would be an advantageous and obvious addition to the system. By storing the applet in firmware or on the hard drive of the user computer, the applet would not be lost every time the computer reboots. Having to reinstall the applet every time the computer is rebooted would be very inconvenient for the user.

48. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to store the applet in firmware or the hard drive of the user computer so that the program would not need to be reinstalled every time the computer is rebooted. This would be very inconvenient and would not ensure that backup connectivity is always available.

49. With regard to claim 45, while the system disclosed by Branson in view of Hibbard in further view of Tsoft shows substantial features of the claimed invention (discussed above); it fails to disclose the applet displaying a message on the user computer indicating that xDSL service has been restored.

However, since there is a substantial difference between the performance of xDSL service and dial-up modem service, it would be advantageous to notify the user that xDSL service has been restored when it becomes available. This would allow the user to perform functions that do not work well with dial-up service, such as downloading a large file or viewing streaming video.

Therefore, it would have been obvious to anyone of ordinary skill in the art at the time the invention was made to have the applet be operable to display a message

indicating that xDSL service has been restored. This will allow the user to resume activities that may have been suspended due to the reduced performance of dial-up service.

50. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Branson et al. (US 6,314,512) in view of Hibbard (US 2001/0056503) in further view of Tsoft in further view of Engel.

51. While the system disclosed by Branson in view of Hibbard in further view of Engel shows substantial features of the claimed invention (discussed above), it fails to disclose that the applet is automatically launched when the user computer is booted.

Engel teaches that having an application start automatically guarantees that it will be available as long as the system is running. This would be particularly useful in this case since the connection monitoring applet can be started automatically, guaranteeing that the backup connection will be available in the event of a connection failure.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to start the applet automatically when the user computer is booted since this would guarantee the availability of the backup connection in the event of a connection failure.

Conclusion

52. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

53. With regard to the disclosed invention, please refer to Vicomsoft's Fallback Server overview. Monitoring an Internet connection and switching to a backup connection in the event of a failure is disclosed as a feature in the commercially available product SoftRouter (Page 2, Paragraph 1). While specific details of the implementation of Fallback Server are not disclosed in the reference, the basic functionality mirrors that of the disclosed invention.

54. The reference titles "Connection Fallback" in an excerpt from a larger document, "Vicomsoft Server User Guide for Windows". The entire document has not been included since it is in excess of 100 pages and has not been cited as grounds for rejection. The entire document is available at

<http://ftp2.vicomsoft.com/win/documents/server.userguide.66.pdf>

55. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

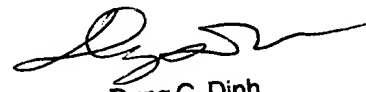
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

56. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 703-305-8878. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 703-305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5484.



Dung C. Dinh
Primary Examiner